

## **CLAIMS**

1. Slab formwork system, of the type that is recoverable and is assembled as a grid, using support bolsters (2) and with vertical braces (1) participating in the general structure, on top of which are mounted the support bolsters (2) for supporting the ends of the corresponding primary beams (3), between which are disposed the formwork panels (5) so that they are supported, which formwork panels (5) consist of a frame with inner partitions defining the means of support of the formwork skin, characterised in that on the support bolsters (2) in addition to the primary beams (3) rest the cross beams (4) that close the formwork grid, defining the exact distance between the primary beams (3) and stiffening the grid structure so that it is even possible to assemble the entire grid and later place the formwork panels, thereby simplifying the assembly; such that the support bolsters (2) are provided with a plate (16) having four cross-shaped sectors that define as many cradles (18) with inclined bases for the positioning and support of the ends of the primary beams (3) and the cross beams (4), with the primary beams (3) and the cross beams (4) having lower projections on their ends in the form of heels (6) with a lower surface (7) that is inclined complementarily to the base of the support cradles (18) established in the plate (16) in order to determine a wedge effect of the panels towards the brace.

2. Slab formwork system as claimed in claim 1, wherein the primary beams (3) have longitudinal shapings on their sides defining grooves (8) with an inclined base and a front protrusion (9), with the same configuration as the cradles (18) provided in the plates (16) of the bolsters (2), allowing the formwork panels (5) to rest on them, as well as in certain cases the secondary beams (41) used in riveting against columns (40) and/or walls, with the formwork panels (5) also provided with a lower protrusion (33) with a lower surface (34) having a similar inclination to that of the grooves (8) defined on the sides of the primary beams (3), such that by said inclined support of the panels on the beams the weight of the concrete will tend to keep the panels together, improving the seal of the formwork.

3. Slab formwork system as claimed in claim 2, wherein on the grooves (8) provided on the sides of primary beams (3), it is possible to mount transversally longitudinal beams to determine an outlet at 90° that changes the sense of assembly of the grid or even allows overhangs to be obtained, being supported on said grooves (8) by the heels (6) provided on the end of the longitudinal beams set at 90°.

4. Slab formwork system as claimed in claim 1, characterised in that the cross beams (4) are provided with an upper and lateral coating consisting of an extruded profile (12) of rubber or the like that determines a seal between the grids and a means for absorbing possible clearances between the panels (5) caused during their assembly.

5. Slab formwork system as claimed in claim 1, wherein the cradles (18) established in the plate (16) of the bolster (2) are laterally limited by partitions (20) that act as a stiffening means for the plate (16) itself and as a guide means when resting the ends of the primary beams (3) and the cross beams (4) on the cradles (18); also having established an outwardly projecting oblique protrusion (19) in correspondence with the inlet edge of each cradle (18) that allow hanging the longitudinal beams from the bolsters during the raising and assembly operations of the formwork.

6. Slab formwork system as claimed in claim 1, wherein the plate (16) of the support bolsters (2) rests on an external nut acting as a locking wedge (17) and that is manually turned to lock it and retain the plate (16) in a raised or operative position, or unlock it to allow the plate (16) to descend for the corresponding stripping of the beams (3), (4) and the panels (5), with the special characteristic that said wedge (17) that locks the plate (16) is internally provided with a pair of inclined planes (21) by which locking and unlocking takes place against a stopping element (22) provided for such purpose on the main tube (3) of the bolster (2); such that the clamp acting as a locking wedge (17) is externally provided with sturdy lateral protrusions (23) that can be struck by a hammer and turned to effect the corresponding release.

7. Slab formwork system as claimed in claim 1, wherein the support bolsters (2) consist of a main tube (13) in which are mounted, free to slide upwards and downwards, the plate (16) and the clamp acting as a locking wedge (17), having a tubular lower segment (25) for coupling to the top ends of the corresponding brace (1), to which it is attached by a locking device in the form of a bolt (26) pushed on by a spring (29) and provided with two protrusions (27) and (28), one that is housed in an orifice of the brace (1) and locks to it and another that acts as a button for a manual operation on said bolt, making the bolt (26) swivel, releasing it and separating the bolster (2) from the brace (1).

8. Slab formwork system as claimed in claim 1, wherein for special applications such as for riveting the formwork against pillars and/or walls, the primary beams (3) and the secondary beams (4) have a wooden block (10) on top to allow nailing down wooden boards.

9. Slab formwork system as claimed in claim 1, wherein in the frame of the formwork panels (5) includes partitions (5') that join pairs of partitions (5'') defining the grid structure of the panel (5); such that the reinforcement brackets (31) mounted on the corners of the frames corresponding to the panels (5) are mounted with a guide on the profile (32) of the frame.

10. Slab formwork system as claimed in claim 1, wherein the formwork panels (5) have a peripheral frame provided with stiffening brackets (21), as well as a small intermediate step (35) on which rest the transverse ribs of the panels, also being provided on its top with a protrusion with a lateral inclined surface (36) that simplifies the insertion of the last panel of each grid, ending at an edge on its bottom to define an anti-drip element in the event that concrete filters between the panels; with the frame that forms the formwork panel (5) being inferiorly provided with a bevelling (38) that allows to hang the corresponding panel (5) vertically during the stripping operation.

11. Slab formwork system as claimed in claim 1, wherein the primary beams (3) have lower protrusions (11) in the form of heels between which is defined a recess that establishes a housing, with said heels (11) having an inclined surface so that the aforementioned primary beams (3) can rest by said inclined surfaces on fixed bolsters, with the aforementioned recess used to house means or elements for centering the beam on the bolster.